

## भारत सरकार Government of India विद्युत मंत्रालय Ministry of Power केन्द्रीय विद्युत प्राधिकरण Central Electricity Authority विद्युत प्रणाली संचार विकास प्रभाग

## Power System Communication Development Division

CEA Case No.: KNK-1063					
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV (partially S/C and partially D/C)					
Feeder-07 from 220/33 kV Pooling Substation, Thondihala Koppal to Double Pole yard Tapping Point SGTA-20 of RSOPL Peak Power Wind farm. (Length: 5.26 kms D/C + 9.3 kms S/C).					
S. No	Reference No.	Dated			
(i)	RSOPL/Peak power/33kV/PTCC/24-25/013	10.01.2024			
(ii)	RSOPL E-mail:	10.07.2024			
(iii)	BSNL: SR-PTCC/SKT5934/2	26.06.2024			
(iv)	South Western Railway: SG/SWR/PTCC/KNK1063/2722	05.06.2024			
(v)	Defense: B/46937/Sigs 7(b)/3731	16.05.2024			

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (ii) has been computed. The voltage likely to be induced on paralleling communication circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

DET (PTCC), SZ, BSNL vide reference (iii) and DG Signals, MoD vide reference (v) has given their NOC for charging the line.

EPR Zones for proposed substations are mentioned below.

Name of the	Half	Fault	Resistance	d (mts)	d (mts)	d (mts)	d (mts) at
proposed SS	Diagonal	Current,	of earthmat,	at 430	at 650	at 7 kV	10 kV
	Distance,	I (kA)	R (Ohms)	V	V		
	D/2 (mts)						
220/33 kV	88.46	24	0.1201	505	304	NA	NA
Pooling							
Substation,							
Thondihala							
Koppal							
33 kV Feeder-07	6.01	6.2	0.304	20	11	NA	NA
Double Pole yard							
Tapping Point							
SGTA-20							

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above

**Chief Engineer** 

## To,

1.	Divisional Engineer O/o CGM, QA&I circle,		
	(PTCC), Southern Zone	2 <sup>nd</sup> floor, Sanchar Complex, WMS	
		Compound, Jayanagar, 5 <sup>th</sup> block, 9 <sup>th</sup> main,	
		47 <sup>th</sup> cross, Bengaluru- 560 041	
2.	GM (S&T), South	South Western Railway Headquarter, Rail	
	Western Railway	stern Railway Soudha, Hubbali – 580 023	
	M/s ReNew Surya Ojas Private Limited	ReNew Hub, Commercial Block-1, Zone-6,	
3.		Golf Course Road, DLF City Phase-V,	Copy for information
		Gurugram – 122 009	

CEA Case No.: KNK-1063

## **ANNEXURE-I**

**Map Scale** : 1 cm= 500 m

**Total Length**: 5.26 kms D/C + 9.3 kms

S/C

Name of the Power line: 33 kV (partially S/C and partially D/C) Feeder-07 from 220/33 kV Pooling Substation, Thondihala Koppal to Double Pole yard Tapping Point SGTA-20 of RSOPL Peak Power Wind farm.

**S.R. Value** : 25000 Ohm-cm

		Length of		Effective	
		Parallelis	Mutual	Fault	I.V
		m	Coupling	current	in
S.No.	Telecom. Details	in Km.	in Ohms.	in Amps.	Volts.

South Western Railway: SG/SWR/PTCC/KNK1063/2722 Dated: 05.06.2024					
1	KANR – SGNL	1.8	0.00087	19521	17
2	SGNL - HAPR	2.6	0.00051	11765	6

E-mail: webstar@nic.in

Directorate General of Signals

Signals - 7

General Staff Branch

// May 2024

KNK-1063 Integrated HQ of MoD, (Army)

DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/3731

Senior Manager, Projects ReNew Surya Ojas Private Limited Corporate Off: ReNew Hub, Commercial Block-1 Zone-6, Golf Course Road, DLF City Phase-V Gurugram-122009

PTCC PROPOSAL FOR 33KV SCOH LINE (33KV FEEDER NO 7) FROM THE 220/33 KV POOLING S/S AT THONDIHALA VILLAGE, YELBURGA TALUK, KOPPAL DISTRICT TO PROPOSED RENEW (RSOPL) WIND 33KV WIND POWER DOUBLE POLE YARD TAPPING POINT SGTA-20

- Fefer your letter No RSOPL/Peak Power/33kV/PTCC/MoD/24-25/E/037 03 Feb 2024 (copy att).
- No Objection Certificate (NOC) is accorded based on inputs provided as 2. per Map sheet received vide your letter mentioned above.
- Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(Puneet Lakhanpal) Lieutenant Colonel General Staff Officer Grade 1 (Communication) for Additional Director General (Telecommunication)

Enclosures: As above

Copy to :-

The Divisional Engineer (PTCC) 'D'/Wing, 3rd Floor, Admn Bdg Télecom Complex, Juhu Tara Road, Santracruz West, Mumbai – 400054

Chief Engineer, PSCD Division Central Electricity Authority Room No 702 (North Wing) Sewa Bhawan, R.K. Puram, Sector-1 New Delhi-110066

The DET(PTCC), Northern Zone Bharat Sanchar Nigam Limited Q/o PGM (North), QA & Inspection Circle, Darax Building, Eastern Court, Janpath

- for information

Central Electricity Authority PCD Division

New Delhi-110001 And